

ANALYST:		VPDES NO.	
----------	--	-----------	--

Parameter: Dissolved Oxygen
Method: Luminescence-based Sensor Procedure
 05/06

METHOD OF ANALYSIS:

	ASTM D 888-05 (HACH LDO must adhere to this method)
--	---

		Y	N
1)	If samples are collected, is collection carried out with a minimum of turbulence and air bubble formation? [ASTM 30.1]		
2)	If samples are collected, is the sample bottle allowed to overflow several times its volume? [Permit]		
3)	Is meter calibrated before use or at least daily? NOTE: Instrument must be in 'O ₂ Calibration' mode and sensor cap must be above surface of liquid. [ASTM 29.1, 31.3 & 34.2.1; HACH 4.6.1]		
4)	Is calibration verification within 97% to 104% of the theoretical D.O.? [ASTM 31.3]		
5)	Does the lot code on the meter display match the lot code printed on the sensor cap? NOTE: Code begins with a number between '3' and '9'. [HACH 4.2.1.8]		
6)	Is sensor cap replaced after one year? NOTE: "Cap Expired icon" will display in results window and data exported will be flagged with an asterisk. [HACH 4.2.3.4]		
7)	Are air bubbles trapped on probe tip dislodged before taking a reading? [HACH 4.3]		
8)	Is black surface of the sensor cap clean and unscratched? [HACH 4.3]		
9)	When taking reading is probe deep enough in sample to cover the thermistor (metal button) on side of probe? NOTE: Care should be taken to not touch the thermistor because it will cause an incorrect temperature reading. [HACH 4.4.3]		
10)	Is sample stirred during analysis? [ASTM 31.2]		
11)	Is meter stabilized before reading D.O.? [HACH 4.4.5]		
12)	Is temperature recorded at time of analysis? [ASTM 32.1]		
13)	Is accuracy of thermistor checked annually? [Permit]		
14)	Is 'Dry Storage' used for probes immersed less than 6 hrs. per day and 'Wet Storage' for tips immersed more than 6 hrs. per day? [HACH 2.1 & 2.2]		
15)	If using 'Dry Storage' is desiccant blue in Dry Storage Chamber? [HACH 4.3.1]		
16)	Has Initial Demonstration of Laboratory Capability been performed by each analyst? [ASTM 34.3]		
	a. Prepare Air-saturated Water by bubbling air for at least 30 min. through 1500mL water that is at room temperature ($\pm 2^{\circ}\text{C}$).		
	b. Transfer aerated water to four clean BOD bottles until overflowing, then seal with a stopper.		
	c. Analyze samples.		
	d. Use a D.O. table to calculate theoretical D.O. based on sample temperature and barometric pressure. Results should be between 97-104% of calculated value.		

PROBLEMS: